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THE DEFENSE INDUSTRIAL NETWORK (DINET) - AN ANALYSIS OF

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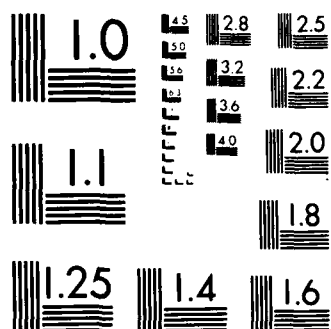
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IDA MEMORANDUM REPORT M-298

THE DEFENSE INDUSTRIAL NETWORK (DINET):  
AN ANALYSIS OF DATA SOURCES

Barbara A. Bicksler  
Richard T. Cheslow

March 1987

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*Prepared for*  
Office of the Assistant Secretary of Defense (Acquisition and Logistics)



INSTITUTE FOR DEFENSE ANALYSES  
1801 N. Beauregard Street, Alexandria, Virginia 22311

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## PREFACE

This memorandum report was prepared by the Institute for Defense Analyses (IDA) for the Office of the Secretary of Defense, Acquisition and Logistics (Office of Industrial Base Assessment), under contract number MDA 903 84 0031, Task Order T-B6-415.

The issuance of this memorandum meets the specific task of researching and reviewing "potentially useful data sources on the health and status of U.S. industries" and providing "an analysis of specific data elements which may be of value to DINET users."

The authors wish to acknowledge the assistance and guidance provided by Mr. Danal Dennison and Mr. Marvin Goldstein of OIBA. We are also grateful to the many individuals who provided data and information on the data sources researched.

Valuable comments and review on the various drafts of this report were provided by Dr. David Graham and Mr. Paul H. Richanbach, IDA.

Finally, the authors wish to thank Mrs. Patricia Schmidt and Mrs. Traci Fulk for their fine work in completing manuscripts and preparing the document for publication.

## CONTENTS

PREFACE .....	iii
A. INTRODUCTION.....	1
B. POTENTIAL DATA BASES.....	4
1. Macroeconomic.....	4
a. Department of Commerce Industry Profiles and Production Data Bases.....	4
b. TPSC TradeNet.....	5
c. Foreign Direct Investment in the United States (FDIUS) Data Base.....	6
d. LABSTAT Data Base.....	6
e. Mineral Commodities Data .....	7
2. Microeconomic .....	8
a. Current Acquisition Activity (DD 350) Database.....	8
b. Contractor and Government Entity (CAGE) File.....	10
c. Duty-Free Entry Data.....	10
d. Federal Information Processing Standards (FIPS) File.....	11
e. Register of Planned Emergency Producers (RPEP).....	11
f. Preaward Surveys of Prospective Contractors.....	12
3. Industrial Capability .....	26
a. Army.....	26
b. Navy.....	27
c. Air Force.....	28
4. Priority Listings .....	32
a. The Militarily Critical Technologies List (MCTL).....	32
b. Critical Items Lists (CILs).....	33
c. Master Urgency List (MUL).....	33
d. DoD Key Assets List (KAL).....	34
C. RESULTS .....	35
D. CONCLUSIONS AND RECOMMENDATIONS .....	37
1. Current Economic Trends .....	37
Recommendation 1: .....	38
2. Foreign Sourcing .....	38
Recommendation 2: .....	38
3. Industrial Preparedness .....	38
Recommendation 3: .....	39



4. Priority Lists .....	40
Recommendation 4: .....	40

#### APPENDICES

- A. Defense Industrial Network (DINET) Functional Objectives
- B. Defense Industrial Network (DINET): A Comparison of Data Sources and Functional Objectives

## **THE DEFENSE INDUSTRIAL NETWORK (DINET)**

### **AN ANALYSIS OF DATA SOURCES**

#### **A. INTRODUCTION**

The Defense Industrial Network (DINET) is designed to provide information on the ability of the U.S. industrial base to support the needs of the Department of Defense. An important step in developing such a system is the consideration of both the specific questions that the system will address and the data available to respond to those issues. This Memorandum Report reviews existing data bases that may be useful to the development of DINET. In addition, it will serve as initial guidance to IDA's subcontractor in its analysis of the "software, hardware, and communications requirements" of the system.

OIBA issued a draft of the Functional Objectives for DINET, in October 1986, which presented specific questions and data needs for the DINET system to address. This draft included a prioritized listing of the DINET functions (Table 1). The listing was later finalized, and the description and expected utility of each function is included as Appendix A.

As part of the Phase I development for DINET, OIBA has requested cooperation from the Defense Logistics Agency (DLA) (Memorandum from OASD/A&L (PS/IR), 30 December 1986) in acquiring access to a specified group of data bases (Table 2). These data bases, centered largely on acquisition actions and information, are expected to form the nucleus of the prototype DINET system that is presently under development by OIBA. (Table 3).

The focus of the acquisition module will include producer identification, contract activity, product analysis, foreign sourcing, foreign direct investment, and limited industrial sector and firm analysis. As DINET develops, other modules will cover macroeconomic trends; microacquisition analysis such as parts data, corporate relationships and financial structures; transportation and geographical impact analysis; industrial capability networks to include production schedules, leadtimes and industrial capacity; basic industries data; military requirements; and a bridge between military requirements and industrial capability.

**Table 1. DINET FUNCTIONS**

1. Identify Those Firms Doing Business with DoD
2. Provide Strategic Identification of Firms and Plants
3. List Planned Producers/Contractors with GFM & IPE/GOCO/GOGO/  
Production Plants
4. Provide Firm/Plant Financial and Organizational Profile
5. Analyze Cost/Benefit of Foreign Acquisition
6. Identify Foreign Sources Minerals, Materials, Parts, Components and  
Assemblies Used in Critical Weapon Systems.
7. Identify Domestic Sources for Foreign Supplied Material
8. List Items Restricted to Domestic Sources
9. Identify Those Industries Protected by Known Tariffs and Non-Tariff Barriers
10. Identify Foreign Direct Investment (FDI) Initiatives in the U.S.
11. Highlight Significant Trends For Specific Industries
12. List Industrial Related Economic and Manpower Data
13. Identify Potential Production Capacity
14. Show Pre-Award Surveys
15. Provide Master Urgency List
16. Compute the Benefits of New or Innovative Production Processes
17. Provide Surge/Mobilization Item Profile (Including CILs)
18. Identify Capability to Produce An Item
19. Provide Minimum Sustaining Rate
20. Identify Commercial Equivalent for Military Items
21. Show Item Tier Profile
22. Identify Acquisition Activities and Employment Requirements  
During Surge/Mobilization
23. List Service/CINC CILs
24. Match Industrial Capabilities Available to Meet Military Requirements
25. Provide Key Assests and Essential Facilities List
26. Identify Foreign Vulnerability
27. Provide NATO Production/Requirements Data
28. Identify Strategic and Critical Materials Required for Essential Items
29. Provide Foreign Production Data
30. Provide Militarily Critical Technologies List

Source: OIBA

**Table 2. DATA BASES AND FILES--DINET ACQUISITION MODULE PILOT**

- DD Form 350 (Current Acquisition Activity) Data Base
- Contractor and Government Entity (CAGE ) File
- Duty Free Entry Data Files
- Federal Information Processing Standard File
- Foreign Direct Investment Data Base
- Economic Trend Data, Office of Business Analysis  
(U.S. Commerce Department)

Source: OIBA

**Table 3. DINET ACQUISITION MODULE PILOT**

Purpose:	To establish a near-term automated information capability to provide improved visibility into the U.S. production base for critical weapon system components.
Expected User(s):	Selected Policy Officials required to make daily decisions concerning the U.S. industrial base.
Subject Areas:	<ul style="list-style-type: none"> <li>• Producer Identification (Current, Alternate, etc.)</li> <li>• Contract Activity (Impact Assessment, Procurement Administrative Lead Time, etc.)</li> <li>• Product Analysis by Geographic Area</li> <li>• Foreign Sourcing</li> <li>• Limited Industrial Sector Analysis (Health/Status of Manufacturers)</li> <li>• Foreign Direct Investment</li> <li>• Firm Analysis (Corporate Relationships, Contract Relationships)</li> </ul>
Action Plan:	<ul style="list-style-type: none"> <li>• Acquire data base and files and place on DLA computer</li> <li>• With the assistance of the Institute of Defense Analyses (IDA) and its subcontractor the Systems Research and Applications Corporation (SRA) develop executive-quality software to access information system via an IBM-compatible terminal</li> <li>• Develop appropriate system documentation</li> <li>• Implement Pilot Module as soon as possible in calendar year 1987</li> <li>• Refine the system</li> </ul>
Security Classification:	Unclassified
Access to Acquisition Module:	Limited to approximately 10 users during pilot period
Project Participants:	<ul style="list-style-type: none"> <li>• ASD (A&amp;L) PS/IR</li> <li>• WHS DIOR</li> <li>• DLA, DASC-Z</li> <li>• DLA, DLA-PPS</li> <li>• Institute for Defense Analyses</li> <li>• Systems Research and Applications Corporation</li> </ul>

Source: OIBA

The following analysis reviews the principal data bases containing information which could be used to support the DINET Functional Objectives in Appendix A. It does not presume to be an exhaustive search of all data bases. Rather it reviews those data bases that appear to have the most potential to perform the functions set out by OIBA.

To facilitate this analysis, both the data bases and DINET functional objectives were grouped into broad categories. The four categories of data are: macroeconomic, microeconomic, industrial capability, and priority listings. Section B identifies the data sources in each of these categories and presents a brief summary of each. The summaries describe the type of data in each data base, list the most relevant data elements, and provide information on the use of each system.

The groupings of functional objectives used in the analysis are: current economic trends, foreign sourcing, industrial preparedness, and priorities. Section C provides a matrix analysis that compares the data bases in Section B to the DINET functional objectives. The final section presents the conclusions of this analysis, and makes several recommendations that will be useful in further development of the DINET system.

## **B. POTENTIAL DATA BASES**

### **1. Macroeconomic**

a. Department of Commerce Industry Profiles and Production Data Bases. (*Responsible Organization: Office of Business Analysis (OBA), U.S. Department of Commerce.*) The OBA Industry Profiles and Production Data Bases contain macroeconomic data related to the production and financial characteristics of an industry. The data have been assembled into consistent time series that run from 1958 to 1984 and are updated annually. The data are available on computer tape or in printed tables, and can be accessed in batch jobs through the federal data processing facility located at NIH.

Industry Profiles data contain broad measures of industrial activity for each 4-digit Standard Industrial Classification (SIC) manufacturing industry and for aggregations to 3-digit and 2-digit groups. Time series that provide an overview of each industry include:

- total number of wage and salary workers,
- number of full- and part-time production workers,
- cost of materials,
- value added,

- value of industry shipments, and
- new capital expenditures.

These time series are measured in current dollars with the worker series measured in thousands of workers.

The Production Data Base contains data related to the level of real output produced by an industry. Output reflects the level of shipments plus changes in the level of work-in-process and finished goods inventories during a specific period of time. These time series are measured in both current and constant (1972) dollars for each 4-digit SIC industry. In addition, price deflators are available for each time series. Data elements of interest include:

- industry shipments,
- industry output,
- total inventories--end of year,
- raw materials inventories--end of year,
- work in process inventories--end of year, and
- finished goods inventories--end of year.

The time series from both data bases can be combined to develop a composite indicator of the general economic health of critical industries. In addition, the individual series are available for more in-depth analysis.

b. **TPSC TradeNet**. (*Responsible Organization: Office of the United States Trade Representative, U.S. Department of Commerce.*) TPSC TradeNet contains numerous data bases providing information on imports, exports, trade balances, trade actions, and other trade data. The collection of data files and computer programs in TPSC TradeNet is housed at the federal data processing facility at the NIH. Trade data are collected by Standard International Trade Classification (SITC) commodity codes for approximately 160 countries trading with 230 partner countries. The data base has been concorded to other import and export nomenclatures including the Tariff Schedule of the United States of America (TSUSA)/Schedule B ) and SICs.

The data, available from 1962 through 1982, are provided in values, quantities or both. They include:

- imports,
- exports,

- re-exports,
- trade balances,
- trade shares,
- growth rates of trade flows,
- average trade flows, and
- leading commodity suppliers and customers.

c. **Foreign Direct Investment in the United States (FDIUS) Data Base.** (*Responsible Organization: Office of Trade and Investment Analysis, U.S. Department of Commerce.*) The FDIUS data base identifies specific foreign direct investment transactions in the United States and provides data and related information on significant transactions. As identified in this data base, foreign direct investment means the direct or indirect ownership of 10 percent or more of the voting securities of an incorporated business enterprise, or an equivalent interest in an unincorporated business enterprise, and a 10 percent or more interest in real property transactions. The data are compiled from generally-available public sources, transaction participants, and miscellaneous contacts.

From this data, analysis can be done on overall foreign direct investment trends as well as on trends in investment by source country, industry, or state location. In addition, information on individual transactions can be identified. Data elements include:

- identity of foreign investors,
- names of U.S. firms and assets owned by foreign interests,
- location of transaction,
- value of transaction,
- industry sector, and
- type of investment and ownership (acquisition/merger, joint venture, real estate, new plant, plant expansion, equity increase, other).

Not every data element is available for each transaction. For example, of the 912 completed foreign direct investment transactions identified in 1985, transaction values were reported for only 350.

d. **LABSTAT Data Base.** (*Responsible Organization: Bureau of Labor Statistics (BLS), U.S. Department of Labor.*) The LABSTAT data base contains

macroeconomic data that includes price information, productivity measures, output information, employment statistics, and trade data. The time series are available from 1947 at a variety of frequencies and are up to date within a few months. The trade data cover an extensive list of commodities and countries. Other series include:

- average prices;
- Business Conditions Digest;
- Consumer Price Indices;
- Employment Cost Index;
- employment, hours, and earnings;
- export and import price index;
- imports -- 1967 and 1972 SIC;
- International Labor Statistics;
- industry price indices;
- unemployment and labor force;
- labor turnover;
- federal government productivity;
- industry productivity;
- productivity and cost measures;
- tariff schedule imports; and
- Producer Price Index.

The data base is accessible through several computer languages; Macro Data Language (MDL) is most commonly used. In addition, data can be accessed through a WYLBUR routine.

e. Mineral Commodities Data. (*Responsible Organization: Bureau of Mines, U.S. Department of Interior.*) The Bureau of Mines publishes a variety of documents containing statistical, economic, and technological data on an extensive array of mineral commodities. Much of this data exists in an automated form as well. These data would be useful in providing production and consumption information at the macro level on strategic and critical materials of concern to DoD.



The "Mineral Commodity Summaries" include statistics on:

- domestic production and use,
- level of imports,
- source of imports,
- import reliance,
- consumption,
- prices,
- industry and government stocks,
- recycling,
- tariffs,
- depletion allowance,
- general trends and issues,
- world plant production and capacity,
- world resources, and
- substitutes.

More extensive commodity data are available in the "Minerals Yearbook" and "Mineral Facts and Problems". The "Minerals Yearbook" contains domestic mineral production at the state level; disaggregated consumption, production, and shipments data by type and end-use; and technology information. In "Mineral Facts and Problems" each commodity chapter covers the structure of the industry, uses of the commodity, reserves and resources, technology, supply-demand relationships, byproducts and coproducts, strategic considerations, economic and operation factors, and forecasts to 1990 and 2000.

## 2. Microeconomic

a. Current Acquisition Activity (DD 350) Database. (*Responsible Organization: DLA.*) This system is one of the data bases specified by OIBA for inclusion in the initial version of DINET. The DD 350 (Figure 1) is a procurement summary of DoD contracting actions over \$25,000. The emphasis is on the type of contract, amount of competition, solicitation procedures, and the use of small and/or disadvantaged businesses. There are, however, a few data which may be useful to OIBA. Question D12, for example, identifies the country of origin for products and components not produced in the U.S. Tapping this data base would provide OIBA with some information on the amount and location of foreign sources. Additionally, this data base

INDIVIDUAL CONTRACTING ACTION REPORT (OVER \$25,000)					REPORT CONTROL SYMBOL DD-OR 8 (M) 1814	
<b>PART A</b>		A1. TYPE OF REPORT 0 Original 1 Cancel 2 Correcting		A2. REPORTING NO.	A3. CONTRACTING OFFICE CODE	
<b>PART B</b>		B1. CONTRACT NUMBER		B2. MOD. ORDER OR OTHER ID NUMBER		B3. ACTION DATE (YYMMDD)
B4. CONTRACTOR IDENTIFICATION INFORMATION				B5. PRINCIPAL PLACE OF PERFORMANCE		
B6A. DUNS NUMBER				B5A. CITY OR PLACE CODE		B5B. STATE OR COUNTRY CODE
B6B. CONTRACTOR NAME AND DIVISION NAME				B5C. CITY (name) STATE (country) NAME(S)		
B6C. CONTRACTOR ADDRESS (Street, City, State, Zip Code)						
B6. TYPE OBLIGATION		B7. TOTAL DOLLARS (Completed or Deobligated) (Enter whole dollars only)		B8. PRINCIPAL PRODUCT OR SERVICE		
1 Obligation 2 Deobligation 3 Unobligated				B8A. FSC OR SERVICE CODE		B8B. DOD CLAIMANT PROJ. NO.
				B8C. SYSTEM OR EQUIP CODE		
B9. CONSULTING (W/C) CONTRACT		B10. MULTI-YEAR CONTRACT		B11. TOTAL MULTI-YEAR VALUE		
1 Yes 2 No		1 Yes 2 No		(Enter whole dollars only)		
B12. FOREIGN MILITARY SALE		B13. KIND OF CONTRACTING ACTION (Make one selection from 1 - 8 or A - H)				
1 Yes 2 No		1 Initial Letter Contract 2 Definitive Contract Substantiating Letter Contract 3 Definitive Contract 4 Order Under DOD SOA 5 Order Under DOD Contract 6 Order Under Mandatory GSA Federal Supply Schedule 7 Order with Another Agency 8 Order Under Optional GSA Schedule A Additional Work (new agreement) B Additional Work (other) C Funding Action D Change Order E Termination for Default F Termination for Convenience G Cancellation				
<b>PART C</b> (Do Not Complete This Part if Item B12 Above is Coded 1)						
C1. SYNOPSIS		C2. REASON NOT SYNOPSIS		C3. METHOD OF CONTRACTING		C4. NEGOTIATION AUTHORITY
1 Yes 2 No		(Enter appropriate reason code from instructions)		1 Formal Advertising/Sealed Bidding 2 Negotiated		(Enter appropriate reason code from instructions)
C5. TYPE OF CONTRACT		C6. NUMBER OF OFFERS SOLICITED		C7. NUMBER OF OFFERS RECEIVED		C8. EXTENT OF COMPETITION
A Fixed Price Redetermination - Type A B Fixed Price Redetermination - Type B C Firm Fixed Price D Fixed Price Economic Price Adjustment E Fixed Price Incentive (WFO/Part Incentive)		M Fixed Price Incentive (WFO/Part Incentive) N Cost Plus Award Fee O Cost Contract P Cost Sharing		U Cost Plus Fixed Fee V Cost (WFO/Part Incentive) W Cost (WFO/Part Incentive) Y Time and Materials Z Labor Hour		1 Price Competition 2 Design/Technical Competition 3 Follow on After Price Competition 4 Follow on After Design/Technical Competition 5 Other Non-Competition 6 Catalog or Market Price 7 Not Applicable
C9. SOLICITATION PROCEDURES		C10. AUTHORITY FOR OTHER THAN FULL & OPEN COMPETITION		C11. AUTHORITY FOR OTHER THAN FULL & OPEN COMPETITION		
A Full & Open Competition - Sealed Bid B Full & Open Competition - Competitive Proposal C Full & Open Competition - Combination D Architect/Engineer E Basic Research F Multi-step Award Schedule G Alternate Source - Reduced Cost		H Alternate Source - Mobilization I Alternate Source - Eng/R&D Capability J Set Aside K Small Program L Other than Full & Open Competition		1A Unique Source 1B Follow-on Contract 1C Unpublished Research Prop. 1D Patent/Data Rights 1E Utilities 1F Standardization 1G Only One Source - Other 1H Urgency 1I Miscellaneous 1J Essential R & D Capability 1K International Agreement 1L Authorized by Statute 1M Authorized Reuse 1N National Security 1O Public Interest		
<b>PART D</b> (Do Not Complete This Part if Item B12 Above is Coded 1 or if Item B13 is Coded 6, 7 or 8)						
D1. TYPE OF BUSINESS (Make one selection from 1 - 4 or A - E)		D2. REASON NOT AWARDED TO SMALL BUSINESS		D3. WOMEN OWNED SMALL BUSINESS		
1 Large Business 2 Medium Business 3 Small Business 4 Foreign Concern A Education B Research C Workshop for the Blind or Other Severely Handicapped D Workshop for the Blind or Other Severely Handicapped - Other E Other Handicapped		1 No Known Small Business Source 2 Small Business Not Solicited 3 Small Business Solicited - No Offer 4 Small Business Solicited - Offer Was Not Low 5 Other Reason		1 No 2 Yes 3 Did Not Certify		
D4. REASON NOT AWARDED TO SMALL DISADVANTAGED BUSINESS (SDB)		D5. SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM		D6. LABOR SURPLUS AREA (LSA) PREFERENCE		
1 No Known SDB Source 2 SDB Not Solicited 3 SDB Solicited - No Offer 4 SDB Solicited - Offer Was Not Low 5 Other Reason		1 Plan Required, Incentive Not Included 2 Plan Required, Incentive Included 3 Plan Required, Incentive Not Included 4 Plan Required, Incentive Included		1 Not an LSA Preference 2 Combined Small Business 3 LSA Set Aside 4 Partial Set Aside for LSA Firm		
D7. SUBJECT TO LABOR STANDARDS STATUTES		D8. CERTIFICATE OF CURRENT COST OR PRICING DATA		D9. TRADE DATA RELATING TO PRODUCTS OR COMPONENTS NOT MANUFACTURED IN THE U.S. OR SERVICES PERFORMED BY FOREIGN CONCERNS		
1 Walsh-Hessey Act, Manufacturer 2 Walsh-Hessey Act, Regular Dealer 3 Service Contract Act 4 Davis-Bacon Act 5 Not Subject to Walsh-Hessey, Davis-Bacon or Service Contract Act		1 Not a SDB Program Action 2 SDB Program Phase I Action 3 SDB Program Phase II Action		1 Contains FAR Clause 52.232-16 2 Contains Unusual PP or AP 3 None of the Above		
D10. CONTRACT FINANCING (Progress Payments (PP) and Advance Payments (AP))		D11. BUY AMERICAN ACT PERCENT DIFFERENCE		D12. COUNTRY OF ORIGIN CODE		
1 Contains FAR Clause 52.232-1004 2 Contains FAR Clause 52.232-1004 3 Provides Percentage of Completion PP		1 Contains FAR Clause 52.232-1004 2 Contains FAR Clause 52.232-1004 3 Provides Percentage of Completion PP		1 Contains FAR Clause 52.232-1004 2 Contains FAR Clause 52.232-1004 3 Provides Percentage of Completion PP		
<b>PART E</b> (RESERVED FOR OSD USE)						
<b>PART F</b>						
F1. NAME OF CONTRACTING OFFICER OR REPRESENTATIVE (Last, First MI)		F2. SIGNATURE		F3. TELEPHONE NO.		F4. DATE (YYMMDD)

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Figure 1. DD FORM 350: INDIVIDUAL PROCUREMENT ACTION REPORT

provides information on procurements in support of Foreign Military Sales as well as the acquisition of goods and services related to major weapon systems. The DD 350 provides a useful overview of the upper tiers of the industrial base.

**b. Contractor and Government Entity (CAGE) File.** (*Responsible Organization: DLA.*) This system is one of the data bases specified by OIBA to be included in the initial version of DINET. The system identifies those firms doing business with the Department of Defense and includes the following information:

- manufacturer name, address, and plant index number (PIN);
- the firm's Dun and Bradstreet number; and
- the 4-digit SIC codes and the Federal Stock Class (FSC) code.

CAGE is useful in the DINET system as a cross reference and locator of firms capable of producing critical items for DoD.

**c. Duty-Free Entry Data.** (*Responsible Organization: DLA/DCASR-New York.*) The duty-free entry data base tracks the imports of goods by DoD contractors and military installations to determine their eligibility for duty-free entry. The data elements are entered in two groups: commercial imports--imports by private industry for DoD users, and military imports--goods imported directly to military facilities. The DLA data base records only that information from the Customs Service entry forms (OMB No. 1515) needed to authorize the duty-free entry of goods. Data elements of interest include:

- contract number,
- name of prime and subcontractor,
- dollar value of contract or subcontract,
- expiration date of contract,
- dollar value of shipment,
- cumulative value of shipments,
- country of export (military only), and
- TSUSA number and item (military only).

The data files are organized by contract number, but can also be searched by prime contractor or subcontractor. With the contract number, prime contractor and subcontractor relationships under a given contract can be identified.

**d. Federal Information Processing Standards (FIPS) File.** (*Responsible Organization: National Bureau of Standards, U.S. Department of Commerce.*) The FIPS File provides locational information for an exhaustive list of populated places, primary county divisions, and other localities. Areas of the U.S. covered in the file are the fifty States, the District of Columbia, and all outlying U.S. territories.

Included among the data elements in the FIPS are:

- FIPS state code,
- FIPS place code,
- state postal abbreviation,
- class code,
- entry name,
- FIPS county code,
- county or county equivalent name,
- ZIP code,
- GSA code (cross-reference to GSA Worldwide Geographic Location Code),
- FIPS Standard Metropolitan Statistical Area (SMSA) code, and
- congressional district.

The list is published in FIPS PUB 55 which is available through the National Technical Information Service. The FIPS data will be useful in conjunction with other data sources in DINET to determine the geographic location of various types of manufacturing activities.

**e. Register of Planned Emergency Producers (RPEP).** (*Responsible Organization: DLA.*) The RPEP is the official list of manufacturers of war materiel, who are participants in DoD Industrial Preparedness Planning (IPP). The list includes privately-owned U.S. and Canadian industrial firms and Army, Navy and Air Force-owned facilities. Each plant is assigned to an Armed Services Production Planning Officer (ASPPO). The ASPPO is responsible for assuring that the plans developed by each

industrial participant are valid, and for coordinating procedures with each participant under a surge/mobilization production schedule. The RPEP is listed alphabetically by parent corporation, geographically by state, and numerically by ASPPO code.

The RPEP contains:

- facility name,
- location of facility (city and state),
- plant index number (PIN),
- ASPPO Code, and
- a code indicating the type of planned producer (small business, large business, small business with DoD-owned industrial facilities, large business with DoD-owned industrial facilities, Canadian firm, GOGO plant, GOCO plant, federal prison industry, or state owned industry).

The RPEP also identifies plants in inactive status. Inactive status indicates that there has been no planning with a facility for 12 or more months. After 24 months of inactive status a facility is deleted from the RPEP. The RPEP is published in DoD Directive 4005.3-H.

**f. Preaward Surveys of Prospective Contractors.** (*Responsible Organization: Acquisition Offices.*) Preaward surveys (Figures 2-7) are conducted as part of the acquisition process to determine whether a prospective contractor is qualified to perform the requirements of the contract for which a bid has been submitted. The survey reviews technical, production, quality assurance and financial capabilities of the contractor.

Data collected through the surveys include:

- prospective contractor name and address;
- item name;
- total quantity;
- unit price;
- delivery schedule;
- plant facility characteristics;
- production equipment including manufacturing, special tooling, and special test equipment;
- sources for materials and purchased parts;
- subcontracted items and source;

**Figure 2. STANDARD FORM 1403: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (GENERAL)**

13

SECTION III - FACTORS TO BE INVESTIGATED									
<p>Check marks for request. Columns 1-4 are for factors to be investigated. Columns 5-8 are for factors to be investigated. Columns 9-10 are for factors to be investigated.</p>									
19 MAJOR FACTORS				20 MINOR FACTORS					
				Provide specific requirements in Remarks					
	CHK	SAT	SAT		CHK	SAT	SAT		
	al	bl	cl		al	bl	cl		
A. TECHNICAL CAPABILITY				A.1. DESIGN AND CONSTRUCTION					
B. PRODUCTION CAPABILITY				A.2. MATERIALS					
C. QUALITY ASSURANCE CAPABILITY				A.3. FINANCIAL					
D. FINANCIAL CAPABILITY				A.4. PERSONNEL					
E. ACCIDENTALITY				A.5. ENVIRONMENTAL					
F. IS THIS A MAJOR FACTOR?				A.6. SAFETY					
<input type="checkbox"/> YES <input type="checkbox"/> NO				A.7. SECURITY					
G. IS A FINANCIAL ASSISTANCE PAYMENT PROVISION IN THE CONTRACT?				A.8. OTHER					
<input type="checkbox"/> YES <input type="checkbox"/> NO									
21 REMARKS									

SECTION IV - SURVEYING ACTIVITY RECOMMENDATIONS		
22 RECOMMEND	23A NAME AND TITLE OF SURVEY APPROVING OFFICIAL	23B TELEPHONE NO
<input type="checkbox"/> A. COMPLETE AWARD <input type="checkbox"/> B. PARTIAL AWARD Quantity _____ <input type="checkbox"/> C. NO AWARD	23C SIGNATURE	23D DATE

STANDARD FORM 1403 BACK (10-83)

Figure 2. CONCLUDED

<b>PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR TECHNICAL</b>		GENERAL NO. (For surveying activity use)		FORM APPROVED OMB NO 3000-0110	
		PROSPECTIVE CONTRACTOR			
Provide the following information in narrative or attach continuation on sheets of paper, if necessary, concerning key personnel:			4 FIRM HAS AND/OR UNDERSTANDS		YES NO
1 Names, qualifications, experience and length of affiliation with prospective contractor			a Specifications		
2 Evaluate technical capabilities with respect to the requirements of the proposed contract or item classification			b Exhibits		
3 Description of any technical capabilities which the prospective contractor lacks. (Comment on the prospective contractor's efforts to obtain the needed technical capabilities.)			c Drawings		
			d Technical data requirements		
			Give explanation for any items marked "NO" in 5. Narrative.		
5 NARRATIVE					
6 SURVEY MADE BY	a SIGNATURE (Include typed or printed name)		b OFFICE		c TELEPHONE NO. (Include area code)
					d DATE
NSN 7540 01 142 0133		1404-101		STANDARD FORM 1404 (10-63) Prescribed by GSA FAR (48 CFR) 53.209-1101	

Figure 3. STANDARD FORM 1404: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (TECHNICAL)



<b>PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR PRODUCTION</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">GENERAL NO. (For numbering within user)</td> <td style="font-size: small;">FORM APPROVED GSA NO. 3090-0110</td> </tr> <tr> <td colspan="2" style="text-align: center; font-size: small;">PROSPECTIVE CONTRACTOR</td> </tr> </table>	GENERAL NO. (For numbering within user)	FORM APPROVED GSA NO. 3090-0110	PROSPECTIVE CONTRACTOR	
GENERAL NO. (For numbering within user)	FORM APPROVED GSA NO. 3090-0110				
PROSPECTIVE CONTRACTOR					
SECTION I - ORGANIZATION AND MANAGEMENT DATA					
Provide the following information in narrative or attach continuation on an sheet of paper, if necessary.					
<ol style="list-style-type: none"> <li>1. Describe the relationship between management, production and inspection. Attach an organizational chart, if available.</li> <li>2. Describe the prospective contractor's production control system. State whether or not it is operational.</li> <li>3. Evaluate the prospective contractor's production control system in terms of its historical effectiveness in the proposed contract and its total production during performance of the proposed contract.</li> <li>4. Comment on or evaluate other areas unique to this survey. Include all special requests by the contracting office and any other information pertinent to the proposed contract or item classification.</li> </ol>					
<b>5. NARRATIVE</b>					
NSN 7540-01 140-5526	1405-101				
<b>STANDARD FORM 1405 (10-8-71)</b> Prescribed by GSA FPMR (48 CFR) 52.209-11(c)					

**Figure 4. STANDARD FORM 1405: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (PRODUCTION)**

(continued on next page)

SECTION II - PLANT FACILITIES								
1. SIZE OF TRACT		2. DESCRIPTION AND TYPE OF BUILDINGS						
3. SQUARE FEET UNDER ROOF		4. AREA						
5. SPACE		6. MISCELLANEOUS PLANT OBSERVATIONS						
TYPE		SQUARE FEET	ADDITIONAL	INHALE	(Explain any items marked "NO" on an attached sheet.)			YES/NO
MANUFACTURING	a. Total manufacturing space				b. Power and fuel supply adequate to meet production requirements			
	c. Space available for off-plant items				d. Adequate material handling equipment available			
	e. Total storage space				f. Adequate material handling equipment available			
	g. For inspection lots				h. Transportation facilities available for shipping product			
STORAGE	i. For shipping quantities				j. Adequate material handling equipment available			
	k. Space available for off-plant items				l. Transportation facilities available for shipping product			
	m. Amount of storage that can be obtained for manufacturing (required)				n. Adequate material handling equipment available			
					o. Transportation facilities available for shipping product			

SECTION III - PRODUCTION EQUIPMENT								
LIST MAJOR EQUIPMENT REQUIRED (include GPP and annotate it as such)		QUANTITY REQUIRED FOR PROPOSED CONTRACT	QUANTITY REQUIRED FOR PROPOSED CONTRACT	QUANTITY ON HAND	CONDITION	QUANTITY SHORT (Col. 6) minus (Col. 5)	SOURCE IF NOT ON HAND	VERIFIED DELIVERY DATE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURING							
2	SPECIAL TOOLING							
3	SPECIAL TEST							

8. Coordinate shortage information for financial implications

STANDARD FORM 1405 (10-63)  
PAGE 2

Figure 4. CONTINUED

SECTION IV - MATERIALS AND PURCHASED PARTS			
1. PARTS MATERIALS WITH LONGEST LEAD TIME			
DESCRIPTION (a)	SOURCE (b)	2. VERIFIED DELIVERY DATE TO MEET PROO (c)	

3. DESCRIBE THE MATERIAL CONTROL SYSTEM INDICATING WHETHER IT IS CURRENTLY OPERATIONAL, AND EVALUATE ITS ABILITY TO MEET THE NEEDS OF THE PROPOSED ACQUISITION

SECTION V - SUBCONTRACTING		
HOW MUCH OF THE TOTAL PROPOSED CONTRACT WILL BE SUBCONTRACTED? %		
DESCRIPTION OF SUBCONTRACT ITEMS (a)	SOURCE (b)	VERIFIED DELIVERY DATE TO MEET PROO (c)

SECTION VI - PERSONNEL					
1. NUMBER AND SOURCE OF EMPLOYEES					2. SHIFTS ON WHICH WORK IS TO BE PERFORMED
TYPE OF EMPLOYEES	NO. ON BOARD	ADD. NO. REQUIRED	AVAIL. YES NO	SOURCE	<input type="checkbox"/> FIRST <input type="checkbox"/> SECOND <input type="checkbox"/> THIRD 3. UNION AFFILIATION
a. Skilled Production					AGREEMENT EXPIRATION DATE ▶  4. RELATIONSHIP WITH LABOR INDICATES PROBLEMS AFFECTING TIMELY PERFORMANCE OF PROPOSED CONTRACT (If "Yes," explain on attached sheet).  <input type="checkbox"/> YES <input type="checkbox"/> NO
b. Unskilled Production					
c. Engineering					
d. Administrative					
e. TOT (Lines a, b + c)					

SECTION VII - DELIVERY PERFORMANCE RECORD	

STANDARD FORM 1408 110 831  
 PAGE 3

Figure 4. CONTINUED

**Figure 4. CONCLUDED**

<b>PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR QUALITY ASSURANCE</b>		If more space is required, continue on the back in Section IV or attach con- tinuation sheets.	FORM APPROVED OMB NO <b>3090-0110</b> SERIAL NO (For tracking orders use)	
<b>SECTION I - GENERAL</b>				
1. PROSPECTIVE CONTRACTOR		2. LOCATION		
<b>SECTION II - COMPANY AND SOLICITATION DATA</b>				
3. QUALITY ASSURANCE ORGANIZATION (Describe briefly and attach organization chart.)				
4. QUALITY ASSURANCE OFFICIALS CONTACTED (Names, titles, and years of quality assurance experience)				
3. QUALITY RELIABILITY MAINTAINABILITY REQUIRE MENTS WHICH APPLY		<input type="checkbox"/> MIL-I-45208 <input type="checkbox"/> MIL-C-45662 <input type="checkbox"/> MIL-I-45007 <input type="checkbox"/> MIL-STD-785 <input type="checkbox"/> MIL-Q-9555 <input type="checkbox"/> MIL-STD-470	<input type="checkbox"/> OTHER (Specify)	
4. IDENTICAL OR SIMILAR ITEMS HAVE BEEN <input type="checkbox"/> PRODUCED <input type="checkbox"/> SERVICED BY PROSPECTIVE CONTRACTOR				
<b>SECTION III - EVALUATION CHECKLIST</b>				
		STATEMENTS	YES NO	
1. AS PERTAINS TO THE CONTRACT THESE ITEMS ARE UNDERSTOOD BY THE CONTRACTOR		a. Exhibits, technical data, drawings, specifications, and approval requirements. b. Preservation, packaging, packing, and marking requirements. c. OTHER (Specify)		
2. Records available indicate that the prospective contractor has a satisfactory quality performance record during the past twelve (12) months for similar items				
3. Used or reconditioned material and former Government surplus material will be furnished by the prospective contractor (If Yes, explain in Section IV, on the back of this form)				
4. Prospective contractor will require unusual assistance from the Government				
5. Did prospective contractor fulfill commitments to correct deficiencies, as proposed on previous surveys, when awarded that contract?				
6. Quality control, inspection, and test personnel		NUMBER SKILLED	NUMBER SEMISKILLED	
7. Inspection to production personnel ratio		RATIO		
The following are available and adequate. (If not applicable, show "N/A" in "Yes" column.)				
8. Inspection and test equipment, gauges, and instruments for test article and production (including solicitation specified equipment)				
9. Calibration/metrology program				
10. Written procedures and instructions for inspections, tests, process controls, and other requirements, conformance thereto, in conjunction with other planning control functions				
11. Control of specifications, drawings, changes and modifications, work process instructions				
12. Quality assurance/control organizational structure				
13. System for determining inspection, test, and measurement requirements				
14. Controls for selecting qualified supplies and assuring the quality of purchased materials				
15. Material control, identification, segregation, maintenance, preservation, and correction of defects				
16. Government furnished property controls				
NSN 7540-01-140-5327		1406-101		
STANDARD FORM 1406 (10-63) Prescribed by GSA FAR (48 CFR) 53.209-1(d)				

**Figure 5. STANDARD FORM 1406: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (QUALITY ASSURANCE)**

(continued on next page)



<b>PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR FINANCIAL CAPABILITY</b>		If more space is needed (continue on page 2 back, identify continued items)	SERIAL NO. For tracking activity use:	FORM APPROVED OMB NO.
PROSPECTIVE CONTRACTOR		3090-0110		

SECTION I - BALANCE SHEET/PROFIT AND LOSS STATEMENT				
PART A - LATEST BALANCE SHEET		PART B - LATEST PROFIT AND LOSS STATEMENT		
1. DATE	2. FILED WITH	3. FROM	4. TO	5. FILED WITH
1. FINANCIAL POSITION		2. CURRENT PERIOD		
a. Cash	\$	1. NET SALES	a. CURRENT PERIOD	\$
b. Other current assets			b. First prior fiscal year	
c. Working capital			c. Second prior fiscal year	
d. Current liabilities		e. NET PROFITS PLUS/LESS TAXES	a. CURRENT PERIOD	\$
e. Net worth			b. First prior fiscal year	
f. Total liabilities			c. Second prior fiscal year	
3. RATIOS		4. OTHER PERTINENT DATA		
a. CURRENT ASSETS TO CURRENT LIABILITIES	b. ACID TEST: Cash (temporary investments held in lieu of cash and current receivables to current liabilities)	c. TOTAL LIABILITIES TO NET WORTH		
6. FISCAL YEAR ENDS (Date)		7. (a) ANALYST'S REPORT AND PROFIT AND LOSS STATEMENTS HAVE BEEN CERTIFIED		

SECTION II - PROSPECTIVE CONTRACTOR'S FINANCIAL ARRANGEMENTS	
Mark 'X' in appropriate column: YES/NO. 4. INDEPENDENT ANALYSIS OF FINANCIAL POSITION SUPPORTS THE STATEMENTS SHOWN IN ITEMS 1, 2, AND 3. <input type="checkbox"/> YES <input type="checkbox"/> NO (If NO, explain)	
1. USE OF OWN RESOURCES	
2. USE OF BANK CREDITS	
3. OTHER (Specify)	

SECTION III - GOVERNMENT FINANCIAL AID										
1. TO BE REQUESTED IN CONNECTION WITH PERFORMANCE OF PROPOSED CONTRACT										
2. EXPLAIN ANY "YES" ANSWERS TO ITEMS 1a, b, AND c										
Mark 'X' in appropriate column: YES/NO										
a. PROGRESS PAYMENT										
b. GUARANTEED LOAN										
c. ADVANCE PAYMENTS										
3. FINANCIAL AID CURRENTLY OBTAINED FROM THE GOVERNMENT										
a. PROSPECTIVE CONTRACTOR RECEIVES GOVERNMENT FINANCING AT PRESENT										
b. IS LIQUIDATION OF: AMOUNT OF UNPAID DATED PROGRESS PAYMENTS OUTSTANDING										
<input type="checkbox"/> YES <input type="checkbox"/> NO	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%;">DOLLAR AMOUNTS</th> <th style="width: 30%;">(a) AUTHORIZED</th> <th style="width: 30%;">(b) IN USE</th> </tr> <tr> <td>a. Guaranteed loans</td> <td>\$</td> <td>\$</td> </tr> <tr> <td>b. Advance payments</td> <td>\$</td> <td>\$</td> </tr> </table>	DOLLAR AMOUNTS	(a) AUTHORIZED	(b) IN USE	a. Guaranteed loans	\$	\$	b. Advance payments	\$	\$
DOLLAR AMOUNTS	(a) AUTHORIZED	(b) IN USE								
a. Guaranteed loans	\$	\$								
b. Advance payments	\$	\$								
4. LIST THE GOVERNMENT AGENCIES INVOLVED										
5. SHOW THE APPLICABLE CONTRACT NOS										

NSM 7540-01 140-5528
1407 101
STANDARD FORM 1407 (10-83)  
Prescribed by GSA  
FAR (48 CFR) 33.209-11(a)

Figure 6. STANDARD FORM 1407: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (FINANCIAL CAPABILITY)

(continued on next page)

SECTION IV - BUSINESS AND FINANCIAL REPUTATION		
1	COMMENTS OF PROSPECTIVE CONTRACTOR'S BANK	
2	COMMENTS OF TRADE CREDITORS	
3	COMMENTS AND REPORTS OF COMMERCIAL FINANCIAL SERVICES AND CREDIT ORGANIZATIONS (such as Dun & Bradstreet, Standard and Poor, etc.)	
4	<div style="display: flex; justify-content: space-between;"> <div>MOST RECENT CREDIT RATING</div> <div>DATE</div> <div>BY</div> </div>	
5	OTHER SOURCES (Business and financial reputation and integrity of the prospective contractor or, if not established, of the principal executives as determined by other sources.)	

STANDARD FORM 1007 (10-6-31)  
PAGE 2

Figure 6. CONTINUED



6 DOES PRICE APPEAR UNREALISTICALLY LOW? <input type="checkbox"/> YES <input type="checkbox"/> NO DESCRIBE ANY SUBSTANDING CIRCUMSTANCES OR JUDGMENTS		
SECTION V - SALES		
CATEGORY	CURRENT DOLLAR BACKLOG OF SALES <small>(a)</small>	ANTICIPATED ADDITIONAL DOLLAR SALES FORECAST FOR NEXT 18 MONTHS <small>(b)</small>
1 Government (Prime and subcontractor)	\$	\$
2 Commercial	\$	\$
TOTAL	\$	\$
SECTION VI - RECOMMENDATION		
RECOMMEND <input type="checkbox"/> a COMPLETE AWARD <input type="checkbox"/> b PARTIAL AWARD (quantity) <input type="checkbox"/> c NO AWARD		
REMARKS (Cite those sections of the report which substantiate the recommendation. Give any other pertinent information in this space or the back or the additional sheet, if necessary.)		
SURVEY MADE BY (Signature and office)		<small>if continuation sheets attached - mark here</small> 4 TELEPHONE NO. 5 DATE SUBMITTED <small>(include area code)</small>
STANDARD FORM 1407 (12-63) PAGE 3		

Figure 6. CONCLUDED

PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR ACCOUNTING SYSTEM		FEDERAL ACQUISITION REGISTRATION AND CONTRACT MANAGEMENT PROSPECTIVE CONTRACTOR		FORM APPROVED DAWG NO. 3098-0110		
Mark "X" in the appropriate column				YES	NO	NOT APPLI- CABLE
1. Except as stated below, is the accounting system in accord with generally accepted accounting principles applicable in the circumstances?						
2. ACCOUNTING SYSTEM PROVIDES FOR:						
a. Proper segregation of costs attributable to proposed contract and to other work of the prospective contractor						
b. Determination of costs at interim points to provide data required for contract administration purposes or for negotiating revised targets						
c. Exclusion from costs charged to proposed contract, if amounts which are not allowable under terms of FAR 31 Contract Cost Principles and Procedures or other contract provisions						
3. Identification of costs by contract line item and by units, if required by proposed contract						
d. Segregation of preproduction costs from production costs						
3. ACCOUNTING SYSTEM PROVIDES FINANCIAL INFORMATION						
a. Required by contract (avoidance of limitation of cost (FAR 52.232-40 and 41) or limitation on payments (FAR 52.216-16))						
b. Required to support requests for progress payments						
4. Is the accounting system designed, and are the records maintained in such a manner that adequate reliable data are developed for use in pricing for low on acquisitions?						
5. REVIEWER'S Clarification of above deficiencies, and other pertinent comments. If additional space is required, continue on the back or on plain sheets of paper.						
6. SURVEY MADE BY: <i>Signature and office</i>				7. TELEPHONE NO. (Include area code)		8. DATE SUBMITTED

NSN 7540-01 140 9529
1408-101
STANDARD FORM 1408 (10-63)  
Prescribed by GSA,  
FAR (48 CFR) 52.209-117

Figure 7. STANDARD FORM 1408: PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR (ACCOUNTING SYSTEM)

- skilled and unskilled manpower requirements;
- balance sheet information; and
- government and commercial sales statistics.

### 3. Industrial Capability

#### a. Army.

Army System for Automation of Preparedness Planning (ASAPP). (Responsible Organization: U.S. Army Industrial Base Engineering Activity, Rock Island, IL.) The ASAPP is a centralized source for the collection and assessment of industrial preparedness planning data in the Army. ASAPP is a batch processing system that integrates data from the DD Form 1519, DIPEC-Industrial Plant Equipment Records, and various sources of end item, component and mobilization requirements data. The Army Industrial Preparedness Planning List (IPPL), Production Base Analysis (PBA), and Plant Equipment Package (PEP) Status Reports are produced by the ASAPP system. The data housed in the system include:

- current producer identification,
- plant index number (PIN),
- peacetime procurement lead times and production capabilities,
- peacetime procurement delivery schedules,
- secondary item delivery schedules,
- industrial plant equipment (IPE) inventory data,
- mobilization requirements,
- planned producer identification,
- planned producer delivery schedules,
- mobilization production buildup schedules, and
- industrial preparedness measures.

As development of the ASAPP system continues, objectives for new capabilities include prioritizing CIL item deficiencies; prioritizing production of support items to balance with major items; tracking DD Form 1519 production planning; providing surge, sustainability and mobilization data to respond to CIL objectives; and providing analysis capability to evaluate trade-off options and investment strategy for IPP.

Army Industrial Equipment Data (AIED). (Responsible Organization: U.S. Army Industrial Base Engineering Activity, Rock Island, IL.) The AIED data base identifies 84,000 pieces of equipment, including Army-owned industrial plant equipment (IPE), plant equipment packages (PEP), other plant equipment (OPE), special tooling, and special test equipment. The IPE data, collected by DIPEC for the Services and DLA, are updated monthly; the other data are updated on a continuous basis as information becomes available. Data elements in the system include:

- equipment name,
- PEP number (serial number),
- location of storage site,
- owning command,
- mobilization time schedule,
- condition of equipment (new, used, operable, repairable), and
- item produced by equipment.

b. Navy.

Acquisition and Logistics Information Analysis System (ALIAS). (Responsible Organization: Navy Shipbuilding Support Office (NAVSHIPSO).) ALIAS includes corporate data needed to support acquisition, industrial, material and business planning within the Naval Sea Systems Command (NAVSEA) and, as appropriate, other DoD organizations. The system is currently loaded onto an HP 3000 Series III mini computer. Plans include the addition of an HP 3000 Series 58 mini computer with appropriate peripherals (terminals, printers, plotters, modems).

Some of the pertinent data included in ALIAS are:

- manufacturer's name, address, DLA identification number, name and title of primary contact, phone number;
- percent of capacity supporting each military service, the Department of Defense, foreign markets and commercial U.S. markets;
- quarterly production rates under peacetime, surge and mobilization environment;
- lead times under peacetime, surge and mobilization environments;
- number of employees;
- contract information such as contract number, date of first unit delivery, date of last unit delivery, unit price, date of actual receipt;

- applicable MILSPECS;
- Navy program using the product; and
- identification of products and subcontractors through the fifth tier.

*Industrial Preparedness Planning (IPP) System.* (Responsible Organization: Naval Air Systems Command (NAVAIR).) The Navy IPP system is a relational data base management system that compares production requirements for an item or component to the actual production rates attainable by the producer. Using these data the following can be identified: pacing items and production bottlenecks; items produced by, or depending on items produced by a foreign, single, or sole source; delays in the conversion of industrial facilities from peacetime to mobilization/surge production; conflicting demands on a specific industry; and over- or under-utilized industrial capacity.

Some of the pertinent data elements are:

- manufacturer's name, address, and PIN;
- business classification code (shows the size and ownership of the business);
- physical vulnerability code;
- administrative, installation and production lead times;
- shift basis of operation;
- current production;
- maximum attainable production rate from both the minimum sustaining rate and a cold base with or without additional industrial preparedness measures (IPM);
- system in which the product is used, the NSN, and the cognizant management activity;
- the monthly production build-up attainable in meeting maximum production rate; and
- IPM data for each applicable IPPL/PIN combination.

The system hardware will consist of Wang microcomputers attached to a Wang OIS 140 at NAVAIR, Wang microcomputers at five remote sites, and an IBM PC-AT at the Pentagon.

c. **Air Force.** The Air Force has no central automated data system for the collection of industrial capability data, but the development of a system is underway (as described below). Much of the Air Force data is collected for specific studies and is housed in individual office files. The Air Force does collect logistics and support oriented

data in the Weapon System Management Information System (WSMIS) and through the Logistic Support Analysis process.

*Emergency Priorities Allocation System (EPAS).* (Responsible Organization: Joint Aeronautical Materials Activity Command (JAMAC), Wright-Patterson AFB, Ohio.) Housed in EPAS are the bill of materials data collected by the Air Force. The Air Force maintains abbreviated bills of materials for airframes and engines for all Services. Approximately 109 systems are covered.

Bills of Materials come in two forms: detailed and abbreviated. A Detailed Bill of Materials lists all materials required for each individual part of the end item actually fabricated by the prime contractor or its subcontractors. Data elements include:

- procured item;
- prime contractor name and address;
- contract number;
- finished weight of procured item;
- part name;
- federal stock number, part number, or drawing number;
- number for assembly;
- name of material;
- form and shape;
- size and description;
- specification;
- quantity;
- lead time; and
- a listing of subcontracted, purchased, and GFE parts including name and address of manufacturer.

The Abbreviated Summary Bill of Materials is an aggregated list of raw and semi-fabricated materials required to produce an end item. Material requirements are not disaggregated by part or component as in the Detailed Bill of Materials and do not include materials for government furnished equipment or purchased parts. Data elements include:

- procurement item,
- prime contractor name and address,
- contract number,

- weight of one procurement item,
- name of each material,
- quantity,
- MILSPEC or other standard specification, and
- shapes and forms.

Bill of materials data are collected and maintained at the command level. It is up to the program manager and/or contracting officer to ensure that bills of materials will be collected as part of a procurement contract. In some cases this does not happen and as a result many major weapon systems are not covered.

Both the Army and Navy collect detailed bills of materials for selected systems. The Army covers ammunition, the Navy approximately 67 missiles. The Army data is in the Rock Island system; the Navy does not maintain its bills of materials in an automated system.

*Logistic Support Analysis Record (LSAR).* (Responsible Organization: U.S. AMC Materiel Readiness Support Activity, Lexington, KY.) Logistics Support Analysis (LSA) is a systematic and comprehensive analysis conducted on an iterative basis through all phases of the system/equipment life cycle to satisfy supportability objectives. The goal of the program is to (a) cause supportability requirements to be an integral part of system requirements and design, (b) define support requirements that are optimally related to the design and to each other, (c) define the required support during the operational phase, and (d) prepare attendant data records. LSA applies to all system/equipment acquisition programs, major modification programs, and applicable research and development projects. LSA requirements are applied through MIL-STD 1388-1 and are tailored to each acquisition.

LSAR data are generated in all phases of the life cycle and are drawn from test results, field data, comparative analysis, and other sources. The data provide a record that can be used for system readiness management in the operational phase and for use as a comparative baseline in developing new systems and equipment. Data collected through LSA may include:

- operations and maintenance requirements (manhours, repair time, etc.);
- reliability and maintainability characteristics;
- failure modes and effects analysis;

- criticality and maintainability analysis;
- personnel and support requirements including training, support equipment, support items list, spare and repair parts;
- facility requirements;
- skill evaluation and justification;
- transportability engineering characteristics; and
- test equipment and facilities.

LSAR data is available primarily for the Air Force. The utility of this system will increase as participation by the other Services becomes more widespread.

*Industrial Surge and Mobilization Planning System (ISAMPS).* (Responsible Organization: Air Force Logistics Command (AFLC), Wright-Patterson AFB, Ohio.) The ISAMPS is to be used by the Air Logistics Centers (ALC) as an analytical and planning tool in evaluating industrial capability for critical AFLC items. It is currently in prototype software development. It is hoped that the system will cover as many as 2000 of the over 800,000 items for which AFLC is responsible. Data are being collected on the current critical items list, which covers about 150 items.

Data for ISAMPS are collected from a special questionnaire sent to the contractor, which is followed up by a plant visit. The data which are expected to be included in ISAMPS when the system becomes operational are:

- percent of capacity used for defense, commercial and foreign work;
- number of shifts operating;
- current lead times;
- current percent of plant utilization;
- operating hours per week per item;
- critical factors and bottlenecks in the production process;
- special tooling and test requirements;
- critical skills;
- training time;
- percent of workforce in Reserves and National Guard;
- major subcontractors;
- alternate suppliers;
- critical, sole source, and foreign suppliers;



- ramp up time; and
- production constraints (process and environmental).

#### 4. Priority Listings

a. The Militarily Critical Technologies List (MCTL). (*Responsible Organization: OUSD (A), Office of International Programs and Technology.*) The Militarily Critical Technologies List (MCTL) identifies technologies that contribute to the development, production or utilization of items controlled for national security purposes. MCTL technologies have been assessed by DoD to be crucial to certain military capabilities. If exported, these technologies can be of significant value to the advancement of military systems of potential adversaries.

The inclusion of an item in the MCTL does not presume that export of the item is controlled. Rather, the MCTL is intended as a technical reference for technology security to support the development of export control lists. In addition, the list provides guidance for structuring cooperative programs through which military technology is shared with allies in order to safeguard against the diversion or re-transfer of critical technologies.

The MCTL has both classified and unclassified versions. The unclassified version consists of a list of the critical technologies. The classified version includes a general description of each technology area, the military rationale for control, and a list of the critical elements. A methodology exists to link MCTL technologies directly to the military platforms and systems in which they are used in order to demonstrate the importance of their relationship to national security.

The elements in the MCTL are organized into four general categories:

##### 1. *Arrays of Know-How.*

Know-how and related technical information required for the design, manufacture, and utilization of a militarily significant commodity or aspect of technology. Know-how includes services, processes, procedures, specifications, design data and criteria, and testing techniques.

##### 2. *Keystone Equipment.*

Equipment necessary to apply technical information and know-how and which would give insight into the design and manufacture of a U.S. military system.

##### 3. *Keystone Materials.*

Materials necessary to apply technical information and know-how.

4. *Goods Accompanied by Sophisticated Know-How.*

Goods which require significant technical information and know-how to use or maintain. Goods with embedded know-how that can be disclosed through use of reverse engineering.

b. **Critical Items Lists (CILs).** (*Responsible Organization: Organization of the Joint Chiefs of Staff (OJCS), J-4 and each of the Military Services.*) CILs are prioritized lists of end items/weapon systems that are essential to sustained combat operations. These lists serve as the basis for industrial preparedness and surge and mobilization planning within the Military Services and OJCS.

The CINC's Critical Item List (CINC's CIL) is developed annually by OJCS based upon those items considered by the CINCs to be most critical to their warfighting capability. This list is then distributed to each of the Military Services for use in the development of the Military Services' CIL. Each Service develops a list of critical items based upon, but not limited to, the CINC's CIL.

The OJCS is in the process of automating the CINC's CIL. The data base to support this effort is expected to include information such as item nomenclature, unit price, procuring agency, critical components, and spares.

c. **Master Urgency List (MUL).** (*Responsible Organization: OIBA.*) The MUL identifies critical defense production programs and provides a relative priority ranking of each program for determining industrial priorities and resource allocation support. Programs in the MUL are organized into two national and military urgency categories: BRICK-BAT and CUE-CAP. Programs in the BRICK-BAT category have highest national priority and require Presidential approval. All items in this category are of equal priority and are assigned a DX industrial priority rating.

CUE-CAP programs are determined to be of highest DoD priority and are assigned a DO industrial priority rating. Items in the CUE-CAP category are ranked in the order of relative priority. (Two other categories, DRY-DAY and ELK-EAR, are used if required for emergency conditions.)

Data elements in the MUL include:

- item nomenclature,
- urgency category designator,

- relative priority number (when applicable),
- total dollars under contract,
- total quantities and/or rate per month,
- undelivered balance,
- delivery completion target date,
- prime contractor and in-house facilities,
- military justification, and
- production resource justification (critical components, suppliers, anticipated material or production equipment shortages, necessary actions taken or needed to meet program schedule).

The MUL is classified at the SECRET level.

d. **DoD Key Assets List (KAL)**. (*Responsible Organization: Previously, Commander in Chief, United States Readiness Command (USCINCRD); new organization yet to be determined.*) The KAL is a compilation of selected civil assets in the U.S. and its possessions which have been determined to be of greatest importance to military operations, defense mobilization deployment, and defense sustainment programs. The KAL is compiled and maintained as part of the Key Assets Protection Program (KAPP). According to DoD Directive 5160.54, the KAPP will develop and promote the protection of key assets within the United States by providing advice, guidance, and planning assistance concerning the application of physical security and emergency preparedness measures to the owners or managers of such assets.

An asset selected for inclusion in the KAL must be either: (1) a mobilization, deployment or supporting asset whose loss would halt or unacceptably delay DoD mobilization and deployment efforts, or (2) an industrial asset that produces or supports items on the Commander in Chiefs' Surge Critical Items List (CIL) or a similar list of critical items prepared by a DoD Component. Assets include communication and computer systems; energy sources; air, rail, road or water transportation assets; infrastructure facilities that support an industrial asset, military facility, or any mobilization, deployment or military operation. Military or DoD facilities are not considered "key assets" for KAL purposes. Government-owned and contractor-operated assets, whose physical security is the sole responsibility of the contractor may be nominated as a key asset.

Data elements in the KAL include:

- asset name,
- mailing address,
- physical location,
- asset type,
- asset owner,
- category of importance,
- product name, and
- end product asset supports.

Key assets are assigned numbers to indicate the relative priority order of that asset within a category. Key assets are assigned to one of the following categories:

1. *Category One.*

A key asset for which there is no replacement, substitute, or alternative. Partial or complete loss would have a serious impact on U.S. defense.

2. *Category Two.*

Alternative assets are available but all assets are required for contribution to U.S. emergency needs.

3. *Category Three.*

All other assets.

The KAL is highly classified and has a restricted distribution.

## C. RESULTS

The previous section provided brief summaries of the data bases which were investigated for their potential utility to DINET. This section explores and presents the relationship between those data bases and the DINET functional objectives. The matrix that is used as the basis for this analysis appears in Appendix B.

The DINET functional objectives have been reordered and grouped into five general categories and are shown as rows in the matrix. The categories are: current economic trends, foreign sourcing, industrial preparedness, priority lists, and other. The data bases discussed in Section B correspond to the columns and are presented in the same order and categories used in that section.

A significant problem was encountered in attempting to quantify the applicability of a data base to DINET's needs. Each of the data bases was developed to serve a specific

office or agency. Since each office's needs are different, the data developed to satisfy one set of requirements usually do not exactly satisfy another set. However, it should be possible to extract data elements from many of the data bases and make them available to OIBA and other users through DINET.

The extent to which each data base supports a DINET function is represented in the matrix using the following four categories: "complete", "partial", "limited", and "does not apply". The definitions of these terms, as used in this report are:

1. *Complete.*

The data base fully supports the specified function.

2. *Partial.*

The data base contains a substantial amount of information which supports the specified function but cannot be considered a complete source (e.g., Service-specific data). Data from several sources may have to be combined to accumulate a sufficient amount of information to satisfy DINET's needs. It should not be assumed that information from all the data bases identified with a specific function in the matrix would completely support that function. Additional inputs from other sources may be necessary.

3. *Limited.*

The data base appears to have information that supports a DINET function but only to a very limited degree. The linkage between data bases and functions at this level is uncertain and can only be determined through queries on a case-by-case basis.

4. *Does not apply.*

The data base provides no support to the function.

Two data bases, the LSAR and ISAMPS discussed in Section B.3.c., have not been included in Appendix B. The data in the LSAR, which focusses primarily on maintenance and logistics, provide limited support to the DINET functions as currently identified. This detailed level of data may, however, prove to be useful to the system in later stages of development.

The ISAMPS is still in the evolutionary and developmental stage, and is therefore not included in the matrix. As the system is currently defined, it appears that the ISAMPS will be an important source of industrial capability data in the Air Force. However, its true potential to DINET can only be evaluated once the system is more fully established.

## D. CONCLUSIONS AND RECOMMENDATIONS

Based on the research to date, a review and analysis of the matrix in Appendix B yields the following conclusions:

- Only seven DINET functions are fully supported by the data bases investigated (functions 3, 10, 14, 15, 23, 25 and 30).
- Four DINET functions are not supported at all by the twenty data bases reviewed (functions 16, 20, 22 and 27).
- Five DINET functions receive only limited support from any of the reviewed data bases (functions 5, 8, 9, 26 and 29).
- The remaining fourteen DINET functions receive partial, but not complete, support from the data bases.
- All of the data bases completely or partially support at least one of the DINET functional objectives.

By examining the matrix more closely, generalizations can be drawn about the relationship between functions and data. These conclusions center on four general areas, as indicated by the solid boxes drawn around clusters of cells in the matrix. (Secondary support is shown by the dashed boxes.) From these conclusions, recommendations are made that will be useful both in identifying areas for further research on sources of data and in planning the following stages of DINET's development.

**1. Current Economic Trends.** The first phase of DINET has focused on the acquisition module. The acquisition data can be divided into two groups--macroeconomic and microeconomic. The data from sources outside of DoD--Commerce, Labor, and Interior--fall into the macroeconomic arena. Collectively these data bases provide substantial support to the Current Economic Trend functions in DINET. This information highlights economic trends, industrial capability, manpower requirements and trade flows that can be useful in pointing to microeconomic studies concerning specific firms, plants, or materials.

Macroeconomic data specifically tailored to defense is also available in the Defense Economic Impact Modeling System (DEIMS). Though not a potential part of the DINET system, DEIMS may be considered as an alternate and complimentary source, particularly for forecast data. DEIMS covers industrial output, critical material requirements, skilled labor demand, and regional impacts of defense spending.

**Recommendation 1:** Macroeconomic analysis is an important part of DINET and sufficient quantities of quality data are readily available. OIBA should take the steps necessary to link additional data to DINET from the macro data bases reviewed. In particular, data on trade flows, manpower, productivity, prices, and critical materials would round out the data that will soon be linked to DINET from the Department of Commerce Industry Profiles, Production, and Foreign Direct Investment data bases. In addition, it is important to establish a system which ensures that the data in DINET will be kept as up to date as possible.

**2. Foreign Sourcing.** The foreign sourcing functions in DINET have been given a high priority by OIBA. Though several macro data bases have been identified with functions on foreign sourcing, they provide only the most general indicators of import dependency for products and critical materials. To identify problems associated with specific weapon systems or identify production capabilities associated with a particular firm requires micro analysis. Therefore, the extent to which these and other data bases can provide support to the foreign sourcing objective is uncertain. The data available through the DD 350, CAGE and duty free entry data will provide some insight into foreign sourcing problems, but may require careful interpretation. Another source of information on the foreign sourcing of parts, components, and assemblies is the Defense Integrated Data System (DIDS) maintained by the Defense Logistic Support Center. Using DIDS in conjunction with the Materiel Readiness System at DLA, it is possible to examine approximately 800,000 components on 1,000 weapon systems for evidence of foreign sourcing. It is difficult to find meaningful data on foreign sourcing since much of the problem lies in the lower production tiers rather than with the prime contractor, while much of the data is collected at the prime contractor or first tier subcontractor level.

**Recommendation 2:** Because of the importance attached to foreign source analysis by OIBA, this area should be a priority for continued research on additional data sources or on useful linkages between data sources already identified. The Services' data bases contain minimal foreign sourcing information. However, as they continue to expand their industrial preparedness data bases to include more information on the lower tiers, Service data bases will likely become a most useful source. In addition, data derived from special studies could prove to be particularly useful in support of this set of functions.

**3. Industrial Preparedness.** The majority of industrial preparedness data come from data bases within the military Services since the Services have direct access to

much of this data through the program managers. Half of the DINET functional objectives focus on industrial preparedness. This observation highlights the importance of Service participation to the ultimate success of DINET.

It is important to emphasize that because each Service collects and organizes industrial preparedness data in their own fashion, the systems are not directly compatible and contain varying degrees of detail. Currently, only the Army and Navy have a substantial amount of automated industrial preparedness data, though the Air Force will give a boost to their current capabilities through the development of ISAMPS. Much of the data to support these systems, however, is collected through the DD 1519 forms. This process is currently under scrutiny because of concerns over the quality and usefulness of the data being collected. The continuation of the DD 1519 collection process, or development of an alternate system will have a direct impact on how well the Services are able to maintain updated industrial preparedness data.

In addition to the data bases identified, a significant amount of valuable industrial capability data can be found in special studies and reports such as the Industrial Responsiveness Simulation (IRS), Industrial Responsiveness Analysis (IRA), the Precision Guided Munitions (PGM) Study, the MK 46 Torpedo Study, the M1 Tank/Bradley Fighting Vehicle Study, and the annual Production Base Analyses (PBAs).

**Recommendation 3:** Recognizing the importance of the Service data networks to DINET, OIBA should expand the collection and automation of Service generated industrial capability data. Efforts of this sort are currently underway in each of the Services and will no doubt continue. As DINET progresses toward incorporating Service data, concerns over access will need to be addressed. Much of the data in these data bases are proprietary in nature, and therefore closely controlled. Protocols on the exchange and handling of this data will therefore need to be developed.

OIBA should consider the inclusion of data from special reports and studies, as mentioned above, particularly if state-of-the-art processes for reading the data into the DINET system becomes available.

As DINET is used, gaps in the data available to support industrial preparedness functions will no doubt arise. In addition, several of the functions in this area lack a source for data. Depending on their relative priority to OIBA, some industrial preparedness areas may be candidates for research on additional data sources.



**4. Priority Lists.** The last match between functions and data sources is the most direct -- the priority listings. As mentioned in the previous section, not all of the listings are automated. Since each list is highly classified, access to this data through DINET will require special security attention.

**Recommendation 4:** Because of the security concerns, these data bases are of lower priority to DINET in the near term. However, these lists provide a great deal of information on industrial capability and should in time be linked into DINET, as planned by OIBA.

In a system like DINET, where many functions are supported by a variety of data sources, it is very important to understand the data elements, their sources, the purposes for which they can be used, and how compatible they are with data from alternate sources. The matrix structure used in the analysis above is particularly useful in identifying and ordering the data to address these concerns. It will be an important tool as the system expands, as more data sources are identified and linked, and as documentation is prepared.

**APPENDIX A**

**DEFENSE INDUSTRIAL NETWORK (DINET)  
FUNCTIONAL OBJECTIVES**

**PREPARED BY:  
THE OFFICE OF INDUSTRIAL BASE ASSESSMENT  
OCTOBER 1986**

## DINET FUNCTIONS

### 1. Identify Those Firms Doing Business with the Department of Defense (DoD)

List all foreign and domestic firms doing business (either directly or indirectly) with DoD. Indicate which products they provide. List those Canadian firms doing business with DoD. Currently there is no single source for this information.

**DINET USE:** Will facilitate the analysis of single, sole and foreign source problems and provide opportunities for their resolution.

### 2. Provide Strategic Identification of Firms and Plants

The Contractor and Government Entity (CAGE) file, DD Form 350, and other government and commercial databases will be combined with the Federal Information Processing Standard (FIPS) file, maintained by DLA, which provides geographical data.

**DINET USE:** File will feature plant-firm relationships; address of production facility; proximity to nearest transportation links and earthquake fault lines; along with the Standard Metropolitan Statistical Area (SMSA) and geographic area where the plant is located.

### 3. List Planned Producers/Contractors with GFM & IPE/GOCO/GOGO Production Plants

Contains the listing of planned producers; Government Furnished Materiel listing; Industrial Plant Equipment listing; Government-Owned, Contractor-Operated/Government-Owned, Government-Operated production plant listing; products they make (from DD 1519-2) and location of plants.

**DINET USE:** Provides industrial capacity information for those manufacturers participating as planned producers. It also identifies government production resources that are available for use during surge and mobilization.

### 4. Provide Firm/Plant Financial and Organizational Profile

On the micro level both "open source" financial statistics and acquisition data will be used to highlight a firm's corporate structure, basic information concerning its responsiveness to perform government contracts and typical products it manufactures. On the macro level the focus will be on the general health of specific industrial sectors.

**DINET USE:** To help determine if specific alternative producers are capable of supplying products for the Defense Department.

**5. Analyze Cost/Benefit of Foreign Acquisitions**

System will include item name, its related weapon system(s), country name of foreign contractor, cost and leadtime of foreign item vs. cost and leadtime of domestic item, and our domestic capability to surge.

**DINET USE:** When considering procurement restrictions for domestic suppliers to protect the mobilization base, cost and leadtime are the two prime factors addressed when implementing with such restrictions.

**6. Identify Foreign Sourced Minerals, Materials, Parts, Components and Assemblies Used in Critical Weapon Systems**

List critical and strategic materials. List those parts, components and assemblies supplied either directly or indirectly to DoD from foreign sources. List those parts, components and assemblies supplied from Canadian sources.

**DINET USE:** It will help determine the extent to which we are reliant on foreign sources for critical items.

**7. Identify Domestic Sources for Foreign Supplied Material**

List those firms that may be able to manufacture parts, components and assemblies currently produced offshore.

**DINET USE:** Will provide opportunities to resolve single, sole and foreign source problems. Domestic sources may be necessary in a crisis.

**8. List Items Restricted to Domestic Sources**

List items covered by DoD FAR Supplement Subparts 25.70, Appropriations Act Restrictions; 25.7405, List of Items Excluded from MOU and Offset Agreements; and Part 8 of the FAR (Bearings, Ferrochrome, etc.)

**DINET USE:** Serves as a major criteria for certain items analyzed with DINET.

**9. Identify Those Industries Protected by Known Tariffs and Non-Tariff Barriers**

List those domestic and foreign industries protected by tariffs and non-tariff barriers. Indicate the apparent authority for these trade policies and any special requirements.

**DINET USE:** A qualifying factor when analyzing foreign trade.

10. **Identify Foreign Direct Investment (FDI) Initiatives in the United States**

FDI file will include specific information on foreign-owned firms in the United States including acquisitions, mergers, and construction projects.

**DINET USE:** File will serve as a major qualifier for investigations involving domestic manufacturing capabilities, the investment policies of other governments, surge studies and other issues involving the acquisition of U.S. firms.

11. **Highlight Significant Trends for Specific Industries**

On a macro level aggregated data will be provided on those trends that describe the health/status of certain industries including producer output, business failures, new starts, import penetration, and the percentage of military vs. commercial business.

**DINET USE:** Support mobilization base determinations, contribute to industrial analysis and the formulation of DoD trade and industry policies.

12. **List Industrial-Related Economic and Manpower Data**

On a micro level, unique manpower requirements and skill shortages will be identified where possible for plants and firms. Visibility at the macro level (4 digit Standard Industrial Classification) will be given to the distribution of skills regionally, capacity utilization and specific employment statistics related to manufacturing.

**DINET USE:** Micro data will facilitate analysis of problem areas. Macro data will serve to highlight trends in industry.

13. **Identify Potential Production Capability**

Several possibilities exist to identify potential production capabilities including: the identification of current producers, the identification of alternative producers, and the location of excess capacity from various sources (government facilities, commercial production lines, vacant plants, etc.) Another consideration is the availability of production resources within the North American Industrial Base.

**DINET USE:** Help support surge and mobilization planning and crisis response planning. Contribute to policy development concerning several industrial base issues related to facilities, single/sole sources and specific production shortfalls.

**14. Show Preaward Surveys**

Automate SF's 1403, 1404, 1405, 1406, 1407 and 1408.

**DINET USE:** Provide plant-specific information on the capabilities (financial, technical, quality assurance, etc.) of producers.

**15. Provide Master Urgency List (MUL)**

The MUL is a list of highest national priority (DX) programs and highest DoD priority (DO) programs in a peacetime setting. It serves to prioritize industrial resources.

**DINET USE:** Components of a program (weapon system) take on an added significance in relation to foreign single and sole sourcing; and production capacity/capability when identified with one of these rating classifications.

**16. Compute the Benefits of New or Innovative Production Processes**

There is a need to match the current production process with proposed improvements including anticipated requirements, costs and outputs.

**DINET USE:** To help evaluate Industrial Preparedness Measures (IPMs)

**17. Provide Surge/Mobilization Item Profile (Including Critical Item Lists)**

Identify the item name and related weapon system(s), the Services purchasing it, a list of current, planned and alternative producers, and an estimate of its surge/mobilization capabilities.

**DINET USE:** To provide data on the surge/mobilization capabilities for producers of designated items.

**18. Identify Capability to Produce Item X**

Identify the item and its related weapon system(s), its current, planned and alternative producers, its capabilities, capacities, leadtimes, bottlenecks, and quality history.

**DINET USE:** Provides profile of producer's ability to manufacture a designated item.

19. **Provide Minimum Sustaining Rates (MSR)**

Designated items will be listed along with minimum sustaining production rates. A MSR is the lowest production rate at which a plant can produce the planned items without increasing its unit cost above that cost of the item that would apply in a maximum single-shift operation and retain its production/maintenance capabilities.

**DINET USE:** Minimum sustaining production rates are a key element in the determining the quantity a procurement will be restricted to domestic study.

20. **Identify Commercial Equivalent for Military Items**

Provide commercial alternatives for designated military items which may be used in an emergency scenario. Examples would include flatbed trucks, forklifts, etc.

**DINET USE:** Provides information on additional resources that could be used during a crisis.

21. **Show Item Tier Profile**

Display the relationship of parts, components and assemblies for a given end item produced by prime contractors, subcontractors and suppliers. To the extent possible, indicate the leadtimes required to produce them.

**DINET USE:** Provides vertical view of major assemblies.

22. **Identify Acquisition Activities and Employment Requirement During Surge/Mobilization**

List acquisition activities and identify their ability to handle increased administrative duties during surge/mobilization.

**DINET USE:** Identifies the ability of acquisition activities to handle increased administrative duties during surge/mobilization.

23. **List Service/CINC Critical Item Lists (CIL)**

The Service and CINC CILs list critical items on a priority basis.

**DINET USE:** CILs serve as a proxy for detailed military requirements. A designated item or its components take on added significance in relation to foreign, single and sole sourcing; and production capacity and capability when it appears on a CIL.

**24. Match Industrial Capabilities Available to Meet Military Requirements**

Based on those critical items identified as being necessary to meet military requirements, indicate the industrial resources available to rapidly increase production.

**DINET USE:** Information will be used for readiness planning, policy development, resource allocation tests and exercising.

**25. Provide Key Assets and Essential Facilities**

In the event of certain crises or emergency situations there may be an occasion when specific manufacturing facilities and/or support installations (i.e., electric power grids, key transportation assets and essential sources of supply) will need to be located on short notice. The list is maintained by OJCS.

**DINET USE:** The information and other locational data will be used to perform geographical impact assessments for a number of situations including: earthquake vulnerability analysis, crisis impact assessments, and facilities/manpower studies.

**26. Identify Foreign Vulnerability**

There is a need to identify those parts, components and assemblies in critical weapon systems that are provided by a foreign manufacturer. If possible, a distinction should be made between foreign reliance and foreign dependence.

**DINET USE:** This is a major tool to analyze the foreign sourcing phenomena.

**27. Provide NATO Production/Requirements Data**

Identify the production capabilities for those manufacturers supplying products to NATO countries. Also, list NATO requirements for products manufactured in the United States.

**DINET USE:** Facilitate the analysis of NATO's impact on the mobilization base.

**28. Identify Strategic and Critical Materials Required for Essential Items**

Provide specific information concerning mineral and material related commodities required for essential weapon systems. In a weapon system abstract, identify strategic and critical materials required to manufacture the item, country of origin of materials and alternative sources. Indicate the capability of U.S. basic industries to provide commodities directly and indirectly to DoD.



DINET USE: Highlight the significant role minerals and materials play in the U.S. industrial base. Support policy formulation in several areas including Title III of the Defense Production Act and the National Stockpile.

29. Provide Foreign Production Data

List, to the extent possible, production statistics for foreign sourced items. Also, provide an indication of the reliability of the manufacturers producing the items and the stability of the country where they are located.

DINET USE: To facilitate the analysis of foreign sourcing.

30. Provide Military Critical Technologies List (MCTL)

Maintained by the OUSD(R&E), Office of International Programs and Technology. List is developed in: arrays of design and manufacturing expertise; keystone manufacturing, inspection, and test equipment; and goods accompanied by sophisticated operation, application, and maintenance know-how which are not possessed by countries to which exports are controlled, and which, if exported, would permit a significant advance in a military system of any such country.

DINET USE: Identify whether designated items are included in the MCTL and essential to a major end item.

**APPENDIX B**

**DEFENSE INDUSTRIAL NETWORK (DINET)  
A COMPARISON OF DATA SOURCES AND FUNCTIONAL OBJECTIVES**

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